Managing your ECHO provider

Administering your provider

Your provider should have been created for you by ECHO Operations. As part of that creation process they will do the following,

- Create an Administrators group for the provider
- Create two Access Control Lists
  - All Collections
  - All Granules
- Add a single designated user from your provider's organization to the Administrators group
- Give the Administrators group view and order permissions to the 'All Collections' and 'All Granules' ACLs
- Give the Administrators group full 'CRUD' access to all appropriate Provider Objects

This will allow that designated user to do the following,

- Add other trusted users to the Administrators group
- Create and manage groups specific to their provider
- Create and mange Provider Access Control lists that will allow you to restrict provider management tasks to certain sets of trusted users
- Create and manage Catalog Access Control lists that will allow you to restrict data to certain sets of users with flexible criteria
- Create and manage Order forms
- Create and manage Service forms
- View and order all provider inventory

PUMP set up

1. Log on to PUMP at https://api.echo.nasa.gov/pump/ using the 'single designated user' from provider creation
2. Click on the 'Provider Context' tab
3. Select your provider from the drop down list and click on 'Set'
4. You should see **'Logged in as "foo", Provider Context is "bar"'** where foo is your URS User ID and bar is your provider name

Managing access restrictions to inventory and housekeeping functionality

Creating and managing groups

A group is an arbitrary collection of URS users. Groups can be used in conjunction with Access Control Lists to restrict access to certain features.

For example,

- you may only want a small number of trusted users to be able to create provider alerts
- you may only want a small number of identified users to be able to view and order a specific collection and its granules
- you may want to add a new employee to your Administration group
- you may want to remove a retiring employee from your Administration group

In order to do the above, you must first select or create a group of users

Creating a group in PUMP

1. Click on the side tab 'Data Management'
2. Click on the sub menu item 'Provider Groups' This will display the existing groups for this provider and allow you to create a new one.
3. Click on 'Add New Group'
4. Fill in the form and add URS users as you see fit
   a. You will set the initial management group of your new group to an existing system or provider group. That initial management group will have permission to modify

the group you are creating.

Updating a group in PUMP

1. Click on the side tab 'Data Management'
2. Click on the sub menu item 'Provider Groups' This will display the existing groups for this provider and allow you to create a new one.
3. Click on the 'Update' button of the group you wish to update
4. You may add and subtract users as you see fit from the group
    a. To add, type in the User ID in the field 'Member user name' and click on '+'
    b. To remove, click on the '-' button next to the user you wish to remove

Deleting a group in PUMP

1. Click on the side tab 'Data Management'
2. Click on the sub menu item 'Provider Groups' This will display the existing groups for this provider and allow you to create a new one.
3. Click on the 'Delete' button of the group you wish to delete

Creating provider access control lists

Provider access control lists allow you to limit certain functionality with respect to provider management to a group of users. For example,

- You may only want to grant the ability to create and update Data Quality Summaries to your Science Team
- You may only want to grant the ability to create and update Order Options to your Administration Team

Creating a Provider ACL in PUMP

1. Ensure that your user belongs to a Provider group that is allowed to create and update Provider ACLs
2. Click on the side tab 'Data Management'
3. Click on the sub menu item 'Provider Object ACLs'
4. Select a group which you want to set up Provider ACLs for.
5. Click 'View/Update ACLs'
6. You will see a list of 'controlled objects' and whether each of them can be created, read, updated or deleted for a user in the selected group.
7. You can select and deselect these properties as you see fit.
8. Check 'Allow provider object ACL management' if you want other users in this group to be able to modify provider object ACLs
9. Click on 'Save'

Creating catalog access control lists

Catalog access control lists allow you to limit the ability to view and order inventory resident in your provider to certain users. ⚠ By default, data is private in ECHO and CMR

- You may only want to grant the ability to view a new dataset to your Science Team for Quality Assurance before publishing it to the general public
- You may only want to grant the ability to order data to a certain dataset to registered users

Creating a Catalog ACL in PUMP

There are two parts to this.

1. Creating the ACL
2. Allowing groups to view and/or order inventory that matches the ACL

The common steps are,

1. Ensure that your user belongs to a Provider group that is allowed to create and update Catalog Item ACLs

2. Click on the side tab 'Data Management'
3. Click on the sub menu item 'Catalog Item ACLs'

Creating the ACL

1. Click on 'Add Catalog Item ACL'
2. An ACL may apply to collections and/or granules. Select the appropriate check box
3. An ACL may apply to all collections or a set of collections
    a. All collections (and all granules associated with that collection - see step 2)
    b. A discrete set of collections that you can create by checking collections from a list
4. A collection or granule filter may be applied (TBD)
5. Click on 'Save'

Adding ACLs to a group

1. Select the appropriate group and click on 'View/Manage permissions'
2. For each ACL in the list you can allow that group to view and/or order data belonging to that ACL by checking the appropriate check box
3. Check 'Allow catalog item ACL management' if you want other users in this group to be able to modify catalog item ACLs
4. Click on 'Save'

Data Orders and PUMP

Some providers may elect to provide data ordering functionality. You can set up ordering in general by following the instructions below.

Provider Ordering Policies

1. Click on the side tab 'Provider Policies'
2. Provide a URL for your ordering endpoint. This endpoint must implement the ECHO Order Fulfillment API
3. Check the Submit check box allowing users to Submit orders
4. Provide retry and wait parameters for your ordering service
5. Select all datasets for which duplicate orders are allowed. The default is 'none'
6. If you want your order endpoint to be invoked in a secure manner check 'SSL Enabled' and provide your SSL certificate
7. Click 'Save'

Creating order options and order assignments

They may also elect to provide ordering functionality beyond simple delivery of the raw data.

Provider ordering is conducted through a single order interface defined in your provider policies section.

If you wish to offer the ability to apply specific options to the ordering of data you may use order options to do that. For example,

- You may allow a user to spatially subset a granule
- You may allow a user to order the granule on specific media

This can be achieved by creating an order option and assigning that option to a set of data. This way you can create a single order option for multiple datasets.

PUMP allows you to add an ECHO form to your provider to specify a set of order options. You can then associate that form with one or more datasets in your inventory using an Option Assignment.

Creating an Option Definition

1. Click on the sub menu item 'Option Definitions'
2. Click on 'Add New Option Definition'
3. Fill in the Option Definition form. For details on the required content of the 'Form' field see the ECHO Forms Specification

4. Click 'Add'

Deprecating an Option Definition

In order to assure that existing orders using an option definitions do not fail when deleting an Option Definition we allow the provider to deprecate them first. This will mean that they will no longer be available for creating new orders but existing orders will continue to process without error.

1. Click on the sub menu item 'Option Definitions'
2. Click on the 'deprecate' button of the Option Definition you wish to retire

Creating an Option Assignment

1. Click on the sub menu item 'Option Assignments'
2. Check one or more datasets. These are the datasets you wish to apply an option definition to
3. Click 'Display Option Assignments'
4. Click on 'Add Option Assignment'
5. Select the Option Definition you require from the drop-down menu
6. Select the datasets you wish to associated with that option definition
7. Click on 'Add'

Services and PUMP

In much the same way that you set up ordering for asynchronous requests for data you can set up service implementations, service options and assignments for synchronous requests on data.

Creating service entities

While provider ordering is conducted through a single order interface defined in your provider policies section, multiple services can be defined for a provider.

To provide a service you must do the following:

1. Create or use an existing service interface
2. Create a service implementation
3. Create one or more Service Option definitions (these are akin to order option definitions)
4. Associate those option definitions with your inventory using Service Option Assignments

Creating a service implementation (ESI)

You can create an EOSDIS service implementation by inheriting from the 'EOSDIS Service Interface'

1. Click on the side tab 'Service Management'
2. Click on the sub menu item 'Service Entries'
3. Click on 'Add New Service Entry'
4. Select a type of 'Service Implementation'
5. Provide the URL of your service implementation
6. Virtual Tags
    a. Service interface - check the ''EOSDIS Service Interface'
    b. Datasets - check all datasets that are applicable to this service implementation for your provider
7. Click on 'Save'

Creating a service option definition

PUMP allows you to add an ECHO form to your provider to specify a set of service options. You can then associate that form with a service implementation and, consequently, one or more datasets in your inventory using an Service Option Assignment.

1. Click on the side tab 'Service Management'
2. Click on the sub menu item 'Service Option Definitions'

3. Click on 'Add New Service Option Definition'
4. Fill in the Option Definition form. For details on the required content of the 'Form' field see the ECHO Forms Specification
5. Click 'Add'

Creating a service option assignment

1. Click on the side tab 'Service Management'
2. Click on the sub menu item 'Service Option Assignments'
3. Check one or more services. These are the services you wish to apply an option definition to
4. Click 'Display Service Option Assignments'
5. Click on 'Add Option Assignment'
6. Select a service implementation
7. Select a service option definition
8. Select one or more datasets that can be serviced by that implementation and definition.
9. Check the granules only checkbox if these definitions do not apply to services applied directly to the collection
10. Click on 'Add'

Creating Data Quality Summaries

You may wish to inform your users about various transient characteristics about a dataset and it's granules. More specifically, information that is not suitable for metadata. Such characteristics include data quality.

This mechanism allows you to add supplementary information about a dataset that will only be seen by a user in Reverb

- once as a registered user
- once per session as a guest
- once for each update of the information

In order to utilize this mechanism you need to do two things:

1. Create a Data Quality Summary Definition
2. Create one or more Data Quality Summary assignments

First,

1. Ensure that your user belongs to a Provider group that is allowed to create and update Catalog Item ACLs
2. Click on the side tab 'Data Management'

Creating a Data Quality Summary Definition

1. Click on the sub menu item 'Data Quality Summary Definitions'
2. Click on 'Add Data Quality Summary Definition'
3. Provide a name and summary
4. Click on 'Save'

Creating a Data Quality Summary Assignment

1. Click on the sub menu item 'Data Quality Summary Assignments'
2. Select the datasets you wish to apply your definition to (1 or more)
3. Click on 'Display Assignments'
4. Click on 'Add New Option Assignment'
5. Check one or more collections in the list
6. Select a Data Quality Summary Definition from the drop-down list
7. Click 'Add'

Creating calendar events

If you, as a provider, wish to disseminate any information to your user base then you can create a calendar event. The creation of such will do two things:

1. Put a calendar event on Reverb and the Earthdata Search Client
2. Expose a calendar event through the echo event API

You can create a Calendar event via PUMP

1. Click on the side tab 'Calendar Events'
2. Click on 'Add Calendar Event'
    a. The severity you give this event will determine how prominent that event will appear on Reverb
    b. The event will only be visible in Reverb while it is 'active'. That state is determined by your start and end date. If the current time falls within this range when Reverb is accessed by a user then this event will be displayed. If there is no end date then this alert will be displayed in perpetuity.
    c. Also, by using the above you can set events in the future that will not be displayed until the start date has occurred.